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Water Docket
Environmental Protection Agency
Mailcode: 28221T
1200 Pennsylvania Ave.
NW., Washington, DC 20460.

Via E-mail (cp-chesapeakebayprogram@state.pa.us)

Department of Environmental Protection
Water Planning Office
P. O. Box 2063
Harrisburg, PA 17105-2063

Subject: **Draft TMDL for the Chesapeake Bay**
(Document ID EPA-R03-OW-2010-0736-0001)
Pennsylvania's draft Phase I Chesapeake Bay
Watershed Implementation Plan
RRI Energy – Shawville Generating Station
Bradford Township, Clearfield County, Pennsylvania

To Whom It May Concern:

Based on our understanding and review of Pennsylvania's Draft Chesapeake Bay Watershed Implementation Plan (draft WIP) and the draft Chesapeake Bay Total Maximum Daily Load (Bay TMDL), RRI Energy is providing comments. The draft WIP was prepared to address the U.S. Environmental Protection Agency's (EPA's) expectations for the Bay TMDL, scheduled for publication in December 2010. The purpose of the draft Phase I WIP is to divide nutrient and sediment loads by source sector (e.g. agriculture, storm water, wastewater treatment plants, etc.), NPDES permit loads, and major drainage basin.

RRI Energy supports the TMDL process as a comprehensive means of evaluating water quality conditions, identifying sources contributing to those conditions, and then developing solutions that achieve water quality standards in an equitable and cost-effective manner. Equity and cost-effectiveness are especially important in a TMDL for an area as expansive as the Bay watershed, which covers 64,000 square miles of the East Coast.

Shawville Generating Station

RRI Energy operates the Shawville Generating Station within the Chesapeake Bay Watershed. The Shawville Generating Station is located on the West Branch of the Susquehanna River. The station is comprised of four pulverized coal- fired units (Shawville Unit 1, 2, 3 and 4). The

installed capacity rating for the station (excluding the diesel generating units) is 618 megawatts (winter) and 597 megawatts (summer). All Shawville Units were retrofitted with low NOx burners in the mid-1990s to comply with Clean Air Act legislation. Selective non-catalytic reduction (SNCR) systems for NOx control were installed on each unit in 2005. The fly ash is transported to four silos by a vacuum transport system and landfilled onsite.

The Shawville Generating Station discharges stormwater and wastewater as authorized under NPDES Permit PA0010031. Discharges that will be most impacted by the Bay TMDL and PA WIP include Outfall 005, which includes Internal Monitoring Point (IMP) 205 (treated sanitary sewage) and IMP 405 (treated industrial wastewater), and Outfalls 001, 002, 003, 010 and 012 (stormwater).

Comments

Based on the limited information available for public review, we are concerned that the inputs to the draft WIP and ultimately EPA's Watershed Model do not accurately reflect point source pollutant loadings from industrial discharges to the Chesapeake Bay.

Comment 1. Wastewater Facilities. According to the draft WIP, a Compliance Plan for Industrial Waste Dischargers to the Chesapeake Bay was developed in January 2010 after holding three voluntary meetings with the 30 existing significant industrial dischargers. The plan for these existing facilities was to keep them at their current load plus a 10 percent margin for future growth. The draft WIP also includes 183 significant domestic wastewater facilities. The 183 significant domestic wastewater facilities and 30 industrial facilities are expected to comply by 2017.

Significant point sources are defined as domestic wastewater treatment plants (WWTPs) with a design flow of 0.4 million gallons per day (mgd) or greater or industrial discharges with greater than either 75 lbs/day of Total Nitrogen (TN) or 25 lbs/day Total Phosphorus (TP).

We are concerned that the list of significant dischargers has been prematurely determined to be complete or final leaving other existing significant dischargers with insufficient wasteload allocations (WLAs).

As described in the draft WIP, nutrient loadings can be associated with many sources (e.g., deposition, storm water, air pollution control devices, landfills, etc.). Therefore, to ensure the equitable distribution of waste load allocations, we suggest that the DEP collect monitoring data from all major industrial point sources to better ensure the list of significant point sources is complete.

We recommend including a reserve of WLAs in the WIP to provide some flexibility in the event that other existing significant point sources are identified as the TMDL is implemented in Phases II and III.

As indicated by the DEP in the draft WIP, the short timeframe allotted for development of the WIP did not allow for full analysis of all the comments provided by the workgroups, and the DEP plans to continue to work with these groups, and all interested individuals, on further analysis of ideas and suggestions. RRI Energy looks forward to working with the DEP.

Comment 2. Air Deposition to Water. The draft Bay TMDL includes reductions associated with deposition due to the installation of deNOx technologies throughout the watershed. However, a portion of the reductions in air deposition will return to the Bay from these deNOx technologies in the form of increases in ammonia nitrogen associated with stormwater runoff and in landfill leachate from fly ash handling and disposal.

As a result, WLAs or reserve WLAs are necessary because these deNOx technologies use of ammonia, which can have a balance-of-plant impact on fly ash and associated wastewater discharges. Ammonia tends to adsorb on fly ash within the flue gas train as both free ammonia and ammonium-sulfate compounds. This ammonia can then desorb during subsequent transport, disposal, or use of the fly ash.

In cases where fly ash is placed in a pond, the ammonia may desorb into the pond water. Landfilling of ammoniated fly ash may also cause leachate or runoff waters to have increased concentrations of ammonia, again presenting another TN load.

Therefore, we suggest that a portion of the air deposition reductions in TN loading to the Bay be reserved and provided to the same facilities that have or will be installing these deNOx control devices.

Comment 3. Industrial Storm Water. As indicated in the draft WIP, an up-to-date list of industrial stormwater permitted facilities and associated outfall locations was prepared in April 2010 and was used to complete the industrial stormwater analysis. For consistency with other TMDLs developed in Pennsylvania, each outfall was considered to have an estimated drainage area of 1 acre.

The up-to-date list appears to have been developed using only NPDES General Permits. The list of industrial stormwater permitted facilities fails to include stormwater outfalls that are included in individual NPDES permits and as identified in Stormwater Module 12 of NPDES applications. As a result, the number of permits and associated drainage acreage are significantly under estimated.

As one example, Clearfield County was identified as having 25 Permits consisting of 36 drainage acres. As detailed in Shawville's 2005 NPDES Renewal Application, five stormwater outfalls with a total drainage area of 121.4 acres are present at the station. This is more than the drainage area identified for the entire County. In addition, the drainage area for each

Shawville stormwater outfall is substantially larger than the 1 acre estimated drainage area used for each outfall in the draft WIP. Any WLA derived from this data for stormwater discharges at Shawville or other facilities would result in a WLA that would be impossible to meet with any technology and would require elimination of the stormwater discharge or purchase of credits.

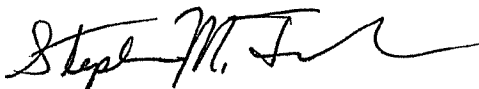
Comment 4. Significant Industrial Waste Discharges. The Shawville Generating Station is identified as an insignificant point source in Appendix Q-1 and Q-2 of the draft Bay TMDL and does not have a sufficient waste load allocation (WLA) for existing discharges.

Of specific concern is that our Shawville Generating Station may have been inadvertently overlooked through this multi year development process. While we are prepared to conduct additional monitoring of TN at the station to establish baseline loadings from our multiple outfalls, some data was collected in July and August of 2005. A summary of this data is included in Table 1 (attached) for your consideration.

We request that the DEP and EPA evaluate the data associated with our discharges and allow the Shawville Generating Station adequate time to develop a discharge baseline and to be appropriately addressed in the PA WIP and Bay TMDL.

RRI Energy is committed to working with the DEP and EPA to establish TMDLs that are scientifically sound, legally defensible, cost effective, and equitable. Please do not hesitate to contact me at (724) 597-8310 if you have any questions or require additional information.

Respectfully Submitted,



Stephen M. Frank
Senior Environmental Specialist

Table 1
Shawville Sampling Data
July - August 2005
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	Sample Date	Outfall 405	Leachate	River	IWT	Outfall 205
Ammonia-Nitrogen (mg/L)	7/6/2005	16.6	67.5	0.1	23.1	< 0.05
	7/13/2005	12.1	67.5	0.05	9.71	3.9
	7/20/2005	9.11	67	0.07	11.7	9.18
	7/27/2005	8.54	4.23	0.14	17.2	10.6
	8/3/2005	12.1	50	0.21	11.6	9.15
	8/10/2005	11.4	61	< 0.05	0.63	5.7
	8/18/2005	8.76	44.15	0.06	13.7	7.7
	8/24/2005	4.99	60.5	< 0.05	2.04	3.6
Nitrate-Nitrogen (mg/L)	8/31/2005	8.34	28.1	0.07	12.2	4.78
	7/6/2005	< 1	12.40	< 1	< 1	< 1
	7/13/2005	< 1	11.80	< 1	< 1	8.80
	7/20/2005	< 1	10.70	< 1	< 1	6.40
	7/27/2005	< 1	7.40	< 1	< 1	6.80
	8/3/2005	< 1	9.50	< 1	< 1	3.00
	8/10/2005	< 1	9.00	< 1	< 1	8.60
	8/18/2005	< 1	11.20	< 1	< 1	9.30
Nitrite-Nitrogen (mg/L)	8/24/2005	< 1	9.70	< 1	< 1	8.90
	8/31/2005	< 1	8.30	< 1	< 1	5.00
	7/6/2005	< 1	< 1	< 1	< 1	< 1
	7/13/2005	< 1	< 1	< 1	< 1	< 1
	7/20/2005	< 1	< 1	< 1	< 1	< 1
	7/27/2005	< 1	< 1	< 1	< 1	< 1
	8/3/2005	< 1	< 1	< 1	< 1	< 1
	8/10/2005	< 1	< 1	< 1	< 1	< 1
Phosphorus (mg/L)	8/18/2005	< 1	< 1	< 1	< 1	< 1
	8/24/2005	< 1	< 1	< 1	< 1	< 1
	8/31/2005	< 1	< 1	< 1	< 1	< 1
	7/6/2005	< 0.10	< 0.10	< 0.10	< 1	0.54
	7/13/2005	< 0.10	< 0.10	< 0.10	< 0.10	2.45
	7/20/2005	< 0.10	< 0.10	< 0.10	< 0.10	1.75
	7/27/2005	0.31	0.51	0.16	< 0.10	3.15
	8/3/2005	0.14	0.13	0.1	0.19	2.25
	8/10/2005	< 0.10	< 0.10	< 0.10	< 0.10	3.05
	8/18/2005	< 0.10	< 0.10	< 0.10	< 0.10	1.2
	8/24/2005	< 0.10	< 0.10	< 0.10	0.2	1.9
	8/31/2005	< 0.10	0.11	< 0.10	< 0.10	1.6

Table 1
Shawville Sampling Data
July - August 2005
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	Sample Date	Outfall 405	Leachate	River	IWT	Outfall 205
Total Organic Nitrogen (TON) (mg/L)	7/6/2005	< 1	< 1	0.8	0.11	1.65
	7/13/2005	1.3	< 1	0.95	2.49	2.3
	7/20/2005	3.79	< 1	0.73	3.2	2.42
	7/27/2005	2.56	35.67	0.96	1.5	2
	8/3/2005	1.1	1.7	1.09	2.9	3.25
	8/10/2005	< 1.0	3.2	1.35	11.47	3.2
	8/18/2005	1.84	5.45	1.34	2.2	4.1
	8/24/2005	3.61	< 1.0	1.15	2.56	3.6
Total Kjeldahl Nitrogen (TKN) (mg/L)	8/31/2005	2.96	6.6	1.23	3.5	3.18
	7/6/2005	12.7	65.2	0.9	< 1.0	1.7
	7/13/2005	13.4	65.6	1	12.2	6.2
	7/20/2005	12.9	35.4	0.8	14.9	11.6
	7/27/2005	11.1	39.9	1.1	18.7	12.6
	8/3/2005	13.2	51.7	1.3	14.5	12.4
	8/10/2005	10.6	64.2	1.4	12.1	8.9
	8/18/2005	10.6	49.6	1.4	15.9	11.8
Total Nitrogen (mg/L) (Note: Total nitrogen was calculated as the sum of Nitrate, Nitrite and TKN. The reporting limit was used in cases where constituents were not detected. For statistical calculations, however, one-half the detection limits were used.)	8/24/2005	8.6	58.5	1.2	4.6	7.2
	8/31/2005	11.3	34.7	1.3	15.7	8.4
	7/6/2005	14.7	78.6	2.9	3	3.7
	7/13/2005	15.4	78.4	3	14.2	16
	7/20/2005	14.9	47.1	2.8	16.9	19
	7/27/2005	13.1	48.3	3.1	20.7	20.4
	8/3/2005	15.2	62.2	3.3	16.5	16.4
	8/10/2005	12.6	74.2	3.4	14.1	18.5
	8/18/2005	12.6	61.8	3.4	17.9	22.1
	8/24/2005	10.6	69.2	3.2	6.6	17.1
	8/31/2005	13.3	44	3.3	17.7	14.4